

Storer (H. R.)

PUBLIC HEALTH



THE LAWS OF HEALTH ARE THE LAWS OF GOD AND AS BINDING ON MAN AS THE DECALOGUE

NEW YORK, SATURDAY, AUG. 30TH, 1879.

Vol. 1. No. 9. 1
Whole No. 9. 1

SUBSCRIPTION,
\$2.00 PER YEAR, Single Copies, 5 CTS.

VALEDICTORY.

The publication of this journal was begun with the feeling that we would meet with sufficient encouragement and support to justify its continuance. This we stated in our Prospectus. Encouragement we have had in abundance, but so little practical support that our enthusiasm is beginning to cool. We have mailed to all classes of citizens about 100,000 copies of PUBLIC HEALTH, at an expense of over \$2,000, and in return have received more requests to exchange than bona fide subscriptions. Complimentary notices from the press, both medical and lay, have been numerous and gratifying, but have failed to enlist the sympathy of the public. It was the public for whom the journal was intended, and it has given evidence that the necessity for a publication of this character is not felt.

In looking over the list of subscribers we find it to consist almost exclusively of physicians, the only profession we have been able to interest in the work. Now, there being a suitable medium for the interchange of opinions between medical men in THE HOSPITAL GAZETTE, an established journal of large circulation, and under our own editorial management, it occurs to us that physicians can better discuss sanitary matters in their own recognized medium, and we have consequently concluded henceforth to publish all sanitary papers in THE HOSPITAL GAZETTE, and to discontinue the publication of PUBLIC HEALTH, at any rate until such time as more interest can be awakened amongst the laity. Present subscribers, therefore, will hereafter receive THE HOSPITAL GAZETTE in lieu of PUBLIC HEALTH, which, as an individual publication, here takes its farewell; and they may feel assured that all important sanitary matters will receive due consideration at our hands.

NEWPORT SANITARY PROTECTION NOTES. NO. I.

BY

PROF. HORATIO R. STORER, M.D., LL.B., NEWPORT, R. I.

The new principle of "sanitary protection," originally conceived by Prof. Fleeming Jenkin of the University of Edinburgh, less than eighteen months since,* and first introduced into this country, at Newport, R. I., during the same year (November, 1878), is already attracting much attention from professional sanitarians, and is very generally admitted to be an important advance. The Newport Association, by a formal clause in its constitution, made it the duty of its council, in addition to their local work, to take such measures "as may tend to assist in the general establishment of sanitary protection," and it is in their behalf, and in pursuance

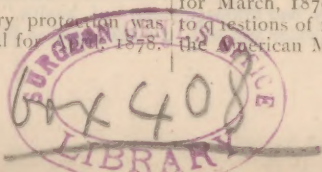
of the end indicated, that the present series of papers is written.*

They will treat of matters at present attracting general attention, of others concerning which distant correspondents of the Newport Association have asked for information, and possibly of still a third class whose importance, if still unappreciated, will be sure before long to become recognized. A two-fold end—a general and a local one—will be sought to be attained; namely, to suggest to sanitarians throughout the United States some of the countless and ever varying details through which sanitary protection may and eventually must be made effective by them under the different conditions of city, village and isolated country life—and, by describing, as an illustrative instance, what at present exists, and what is needed, in a resort of such general interest as is Newport, especially to physicians, in view of the relations of its comparatively mild winter climate to certain classes of invalids, to aid in making the place, as can easily be done with an increase of zeal on the part of its city authorities, well nigh perfect as regards the public health.

To show to those elsewhere who may be wishing to effect a change for the better in their own perhaps very "conservative" neighborhoods, instances of which must always exist until the principles, the importance and the necessity of public sanitation are more generally appreciated than at present, what may be effected through the association together of private citizens for sanitary protection, or in other words for sanitary self-defence, I may mention preliminarily what has thus far occurred in Newport.

*Upon the general subject of sanitary protection, there have already appeared the following articles, in addition to the one above adverted to: three lectures by Prof. Jenkin, two of which were delivered before the Philosophical Institution, and the third before the Medico-Chirurgical Society of Edinburgh, which have been published collectively at Edinburgh under the title of "Healthy Houses;" a reprint of these lectures in March last by the Harpers of New York, with brief notes, "adapted to American conditions," by Col. Geo. E. Waring, Jr.; and two papers by the present writer, one of them, upon the general subject and its adaptation to the special needs of Newport, in the New York "Sanitarian" for March, 1879, and the other, in which attention is called to questions of more general and national interest, read before the American Medical Association, in May, at Atlanta, Ga.

*Prof. Jenkin's first paper upon sanitary protection was published in the Edinburgh Medical Journal for 1878.



So long ago as 1873, Dr. Marion Sims of New York, then a summer resident of Newport, thinking it possible perhaps to adapt the place to the necessities of city invalids, took occasion to allude in print to its vile cesspool system, and to the fact that the water of its wells was, as a rule, wholly unfit for domestic purposes. This statement, though perfectly true, so far from awakening the city authorities to the dangers that equally threatened resident citizens, and the strangers attracted to the place by its natural charms, its possibly overrated reputation for healthfulness*, and by fashion, but resulted in quite openly expressed ingratitude to Dr. Sims, and a more than implied assumption that while the money of those not born in Newport would be accepted towards lessening the taxation of those who were, any advice from such upon sanitary matters would be alike unwelcome and unheeded.

During the same year, the Hon. Samuel Powel, now President of the Newport Sanitary Protection Association, expressed it in print as his conviction, there existing at the time scarlet fever in the city, that "children inhabiting houses where it is known to exist, should not be allowed to visit other children, or go to school." Mr. Powel, though a resident of Newport for many years, happened to have been born elsewhere, and his urgent appeal was unheeded by the city authorities.

Coincidentally, or nearly so, Dr. David King, now President of the State Board of Health of Rhode Island, ineffectually endeavored by a formal letter of advice to the city authorities of Newport to persuade them to establish a proper system of sanitary police. Dr. King informs me that he recommended "a general plan of sewerage, and knowing that the city could only furnish sewerage facilities by degrees, that each sewer put down should be marked on a plan to be preserved in the Street Commissioner's office; that all existing nuisances should be abated, mentioning those arising from hog pens, the vaults of necessaries infecting neighboring lands, thus violating the rights of property, and bone boiling establishments, destroying the comfort of the whole neighborhood; and a careful inspection and supervision of the cemeteries of the town, calling attention to what were known as the McGregor receiving tombs in the Island Cemetery, and recommending that the decaying bodies be taken out and buried."

Dr. Henry E. Turner, City Physician of Newport, in a similar manner, but officially, found it his duty several years since to complain in writing to the authorities, of a stagnant fresh water pool maintained upon the premises of the Old Colony Railway corporation, which every summer became offensive and dangerous, typhoid fever not being unusual upon its margin. No action, however, was taken upon Dr. Turner's communication by the city council.

In 1876, Dr. E. S. F. Arnold of Yonkers, N. Y., a summer resident of Newport, and consulting surgeon to the Newport Hospital, summed up the general situation as follows:—"The hygienic arrangements of Newport City are simply nil. The drainage and sewerage are inefficient, and the water, as far as

drawn from wells, differing only in degrees of impurity. If there is any State Legislation on the subject, it is here a dead letter, and there is, as far as I can see, no sign of improvement, until public opinion, through the efforts of the medical profession, shall be educated up to a perception of the requirements of a need not only existing in cities and towns, but too often in more thinly populated localities, where thousands are apt to seek health and recreation in the summer season."

Dr. Arnold's important letter, addressed to Dr. Bowditch of Boston, and published by that gentleman in the appendix to his work on Public Hygiene in America,* produced apparently no appreciable effect upon the public opinion of Newport, as represented by its officials.

Thus matters stood until the organization in 1878, of the Sanitary Protection Association. A memorial praying for the establishment of a local board of health had been sent to the aldermen, who possess by law all necessary powers as a board of health, but had thus far practically refused to exercise them. This memorial was signed by every physician in Newport, of regular standing. It produced no result whatever, although an Enabling Act, permitting the desired transfer by the aldermen of their authority had been, in connection with that establishing the State Board of Health, obtained from the General Assembly.†

Nothing more now seemed possible, save through an organization of citizens, acting in self-defence. The key note of the Association for sanitary protection, thus forced into existence by the public need, was distinctly given in its printed plan of organization, as follows:

"The Association, in reality a Mutual Insurance company for the preservation of private and public health, is not intended as a substitute for municipal inspection, and will not conflict with the public authorities, but will supplement their action. The Association will, however, be in a position to bring to the notice of the public authorities, any infractions of their regulations which, in the opinion of its council, may call for the adoption of this course. To this end it will receive and patiently consider complaints of sanitary defects or nuisances, public or private, within the city limits."

Within a very short period after its inception, communications were sent by the Association to the Board of Aldermen concerning matters of moment affecting the public health, but were treated with apparent indifference.

A show of interest was indeed temporarily made by the city council appointing a committee, "to present some general plan of sewerage (as far as they can do so without cost to the city), based upon the sewers now in use;" most of which sewers are, however, notoriously wrongly constructed and out of repair. In the circular that was issued, "the

* The Centennial Discourse delivered before the International Medical Congress at Philadelphia, Sept, 1876. Boston: Little, Brown & Co. 1877. P. 240.

† "The City Council of any city may appoint a board of health for such city, which shall have all the powers and duties now conferred by law upon the board of aldermen as a board of health." General Statutes of Rhode Island, chapter 680, section 15.

* The natural aids of health at Newport are many and great. They have been in part neutralized by bad drainage and foul wells, with the result of impure air, water and soil.

opinions of gentlemen of knowledge and experience who may be interested for the welfare of Newport" were called for. Responses were made by Profs. Rogers, Cooke, Gibbs and Agassiz of Cambridge, Fairman Rogers of Philadelphia, Gen. Cullom, and others. Embarrassed by the practical form that the question was now assuming, it was voted by the aldermen, upon the ground that the city had no right to expend money for such purposes as sewerage, to indefinitely postpone the whole matter, until at least it could be discussed by the General Assembly of the State; and the only visible result of the movement was a daintily printed resolution of thanks, a personal copy of which lies upon my desk as one of the sanitary curiosities of the day. The great municipal seal attached to the document is heavily encrusted with gilding as if in satire of the city's plea of economical conscientiousness.

This state of things did not fail to attract public attention, and at the ensuing election a very radical change in the personality of the City Government not unnaturally ensued. The new mayor, Mr. J. Truman Burdick, in his inaugural address some two months ago, thus defined his position regarding the point for which the Sanitary Protection Association had preliminarily been contending, the establishment of a separate board of health with full powers, as fundamentally necessary for the success of its own efforts towards the protection of private households:—"When this subject was urged last year, I doubted the expediency of transferring to others the power of a Board of Health. I find the opinion of the highest authorities upon this subject, both of our state and city, is earnestly in favor of such an appointment. Deferring as I must to the superior wisdom of those with whom I have consulted, and believing as I do that concentration of efforts produces the best results, must be my reasons for changing my opinion."

To make his position as a sanitary protector the more defined, Mayor Burdick goes on to say, in speaking of the peculiar attractions of Newport, "We are accustomed to speak of the natural advantages of Newport, and perhaps think of them as a God-given birthright which can never be alienated or frittered away. Would it were so; but what particular interest can one take in the pure air which surrounds our island, when his own immediate neighborhood is made almost unbearable by piggeries or slaughter-houses; or how can one admire the beauties of a bay or harbor, whose shores and docks are the recipients of all the foul sewerage of the town?"

The event of the whole matter it is now not difficult to foresee. It is always, in every public movement, the first step that costs. One advance has now commenced to succeed another. The Board of Aldermen—while still loth to absolutely relinquish their powers, without full possession of which, upon the other hand, a separate Board of Health would necessarily be but a name, and while nominally postponing final settlement of the question until the next session of the General Assembly, which does not meet until January, 1880, upon the plea that the Enabling Act of 1878, already referred to, requires a word or two of further defin-

ition,* but in reality, because it would give to such a Board, and would take from themselves, the expenditure of any appropriation for health purposes that might be made by the city—have at last appointed an experimental "Advisory" Board of Health. From the character of the appointees, this Advisory Board will be likely to prove a permanent one. Its members are Drs. George Engs, Physician to the Newport Hospital, and Francis H. Rankin, one of the Council of the Sanitary Protection Association, and Capt. J. P. Cotton, whose work in connection with the Government break-water at Block Island, testifies to his ability as an engineer.

Within a week after the formation of this Board had been decided upon, an arrangement was effected between the City of Newport and the Old Colony Railway corporation for the suppression of, perhaps, the worst nuisance and the most decided danger to the public health in the whole city, dependent upon the filthy condition of certain salt and fresh water pools, the latter of which, it has already been stated, was long ago complained of by City Physician Turner, upon the premises of the railway company. During the same short period, the railway has been induced to discontinue the practice of cutting, by a flying switch, while in rapid motion, one of its trains just before reaching a crossing close to the station, at grade and without gates, by which the lives of those in the neighborhood had long been jeopardized. Still other and varied public sanitary improvements of an important character will be sure to follow. Indeed the well known City Engineer of Chicago has already been summoned to Newport to prepare a general plan of sewerage.

* The Enabling Act reads "may appoint." Mayor Burdick, in his inaugural address (June, 1879), thus comments upon the apathy of his colleagues: "In Massachusetts, and perhaps other States, it is not left optional, but the (city) councils are *required* to appoint such persons to act for them. I wish that it had not been left optional in this State." His Honor unfortunately did not appreciate that by decisions of the Supreme Court of the United States, a permissive act, in matters of public moment, is to be construed as a compulsory act; that is to say, what by courtesy to those affected reads as if it were to be a matter of choice and spontaneity, is in reality intended as an imperative duty and an obligation. "The conclusion to be deduced from the authorities," says Judge Swayne, (Supervisors v. United States, 4 Wallace's Reports, 446), "is that where power is given to public officers, in the language of the act before us, or in equivalent language, whenever the public interest or individual rights call for its exercise, the language used, though permissive in form, is, in fact, peremptory. What they are empowered to do for a third person the law requires shall be done. The power is given, not for their benefit, but for his. It is given as a remedy to those entitled to invoke its aid, and who would otherwise be remediless." "When a statute confers an authority," says Lord Chief Justice Jervis, "to do a judicial act in a certain case, it is imperative on those so authorized to exercise the authority. * * * We are of opinion that the word may is not used to give a discretion, but to confer a power; and that the exercise of such power depends not upon the discretion" of the authorities. "It has been so often decided," repeats Mr. Justice Coleridge (14 Q. B., 474), "as to have become an axiom, that in public statutes words only directory, permissive or enabling, may have a compulsory force where the thing to be done is for the public benefit."

The unanimous petition of the physicians of Newport to the city council for a local board of health was clearly an instance of "the public interest calling for the exercise of the power" of transferring their authority.

In my next paper I may take occasion, more directly, to enter upon the discussion of details of public sanitation, as affecting private rights, and the protection of individual citizens.

WELL WATER AND TYPHOID FEVER.

We cannot avoid calling attention to the interesting observations of Prof. Winchell, State Geologist of Minnesota, in regard to the cause of the prevalence of typhoid fever in the western part of that State. The disease was traceable to the use of well water. Investigation showed, first, that the water was alkaline, containing many salts, which accounted for the diarrhoea following its use; second, that the wells were curbed with pine wood, which decomposed, taking up oxygen by reaction with the salts, the sulphates being changed into sulphides and hydrosulphurous acid gas given off. There, as elsewhere, surface-drainage often conveyed into the wells organic matter, which rapidly rendered the water unwholesome. The professor demonstrated that the water itself would not prove injurious, but that it was the action of the pine wood rotting and giving to it organic matter, and thus contaminating and rendering it poisonous. This he proved by experiment, subjecting pine sticks to the action of the well water in wide-mouthed, loosely-covered glass jars. In a short time the sticks sunk to the bottom, gas bubbles formed, a thin scum floated on the surface, swam in the water and settled to the bottom. The odor was first sour, then became very offensive and foul, as from organic decay; fungoid-growths adhered to the glass and floated; organic germs—ciliata—became abundant, and the water finally appeared turbid and had a musty smell and acid reaction.

There is no doubt that the typhoid fever and intestinal troubles of Western Minnesota have been largely due to the use of water contaminated by pine wood; and the same cause has doubtless been operating in other places to produce the same diseases.—*St. Louis Courier of Medicine*.

MINERAL WATERS AND THEIR PRACTICAL VALUE.

Robley Dunglison taught that nearly all the benefits derived from mineral waters should be attributed to "the corrected habits of life, the change of air and scene, the rest from labor or dissipation, and the increased amount of aqueous fluid imbibed, which are always associated with the springs." Had he added that the same salts taken in the same amount of water would accomplish all that these accessories did not accomplish, he would have expressed our own view in the matter. We are no believers in any mystical properties of water from any springs. Ten grains of chloride of sodium will have the same effect when taken in a gallon of pure water from the Detroit or the Hudson rivers, and so with all other salts or combinations of salts. It seems to us absurd for learned men to append their names to a testimonial setting forth the virtues of the water from a spring whose exact composition is settled. It is fully established that magnesium sulphate in certain doses acts as a laxative, and in

other doses as a cathartic. Now, if a mineral water contains say a drachm of this to a pint, certainly anyone can tell what its therapeutic effects will be. Toppers, gluttons of full habit, chronic rheumatics, etc., who are full of waste materials, effete matters, are benefited by drinking large amounts of any bland water. Their sewers need flushing, and to guzzle from a spring is more fashionable than to do the same thing from the well at home. Alkalies and acids largely diluted often produce the happiest effects, as all will testify. But why shall not those be made in the chemist's shop as well as in the diversified strata of the earth? The only possible avowal is that at home the patient gets the benefits of the artificial waters alone, while at the springs he adds to these the effects of the "accessories" of the springs. We have honestly tried to ascertain in what, if any, respects the natural combinations were better than accurately made artificial ones, but the proof of their superiority has been utterly lacking. Still we are inclined to the conviction that to obtain the "accessories" of the springs is worth all it costs to the patient, casting aside utterly any value of the mineral water. So we rather encourage those to visit suitable springs who are able to do so. But we do it with the understanding that the spring will do no harm, while the change of diet, air, surroundings, etc., will rest certain exhausted tissues and glands, while it stimulates others to a normal activity. A change of almost any sort will improve a large class of invalids, and the mineral spring, with its form of medication, gives, if properly selected, a most complete transformation of the patient's environment. We would like to see a more thorough study of the virtues of these waters, with a view to settle the question, "Have natural combinations" a greater value than "artificial combinations"? If so, in what does this increased value consist? If they have no greater value, then Dunglison was correct.—*Detroit Lancet*.

ALCOHOLIC DRINKS: AS MEDICINES, AND AS POISONS. (a)

BY
ALFRED CARPENTER, M.D. LOND., M.B., J.P.,
President of the Croydon Microscopical Society, Lecturer on State Medicine, St. Thomas's Hospital, &c.

THE first question which we have to solve is whether any force can be produced out of alcohol *quæ* alcohol either as animal heat, muscular power, or nervous energy. Is it capable of being at all utilized in the animal economy? Dr. Henry Bennett says ("Nutrition in Health and Disease," p. 64) that alcohol feeds organic combustion, and creates heat, and even Dr. Richardson ("Temperance Lesson Book," p. 182) says that "in its first action it causes the warmth of the body to rise." But there is then a divergence of opinion: on the one hand, eminent men agree with Dr. Bennett, and assert that alcohol is rapidly decomposed, and heat disengaged. Dr. Parkes, from his practical observations, was satisfied that it did evolve heat, though it lowered the temperature for a short time after being taken; whilst others, equally eminent, affirm that there is

(a) Abstract of the Annual Oration delivered before the Medical Society of London.